Amendments to the Claims

Claims 1-29 (Cancelled)

Claim 30 (currently amended): A bimetallic actuator testing device comprising:

a force indicator;

a support structure that is spaced ~~a predetermined distance away from~~ relative to the force indicator such that a bimetallic actuator that is configured in a first pre-snap state and placed thereon contacts the force indicator upon being actuated to a second post-snap state; and

a thermal stage positioned relative to the support structure for changing a temperature of the support structure.

Claim 31 (cancelled)

Claim 32 (original): The testing device of claim 30 wherein the support structure includes an annular land spaced above a base, the land being sized to support a peripheral edge portion of the bimetallic actuator above the base.

Claim 33 (original): The testing device of claim 30, further comprising an intermediary member suspended between the support structure and the force indicator, the intermediary member being structured to transmit a force generated by the bimetallic actuator to a force sensing surface of the force indicator.

Claim 34 (original): The testing device of claim 30 wherein a force sensing portion of the force indicator is positioned to sense peak force generated by the bimetallic actuator by transiting between the first pre-snap state and the second post-snap state.

Claim 35 (original): The testing device of claim 30 wherein the force indicator is structured to display a value of the peak force.

Claim 36 (original): The testing device of claim 30 wherein the force indicator is a conventional pressure-sensing transducer.

Claims 37-44 (Cancelled)

Claim 45 (original): A device for testing a bimetallic actuator, the device comprising:

means for presenting a thermally responsive snap-action bimetallic actuator to a force indicator while a relatively mobile central portion of the actuator is positioned on one side of a relatively immobile edge portion opposite from the force indicator, the actuator being presented sufficiently closely to the force indicator that the relatively mobile central portion is positioned to forcefully interact with a sensing portion of the force indicator during transit to a second side of the edge portion proximate to the force indicator;

means for changing a temperature of the actuator to transit the relatively mobile central portion into a position on the second side of the edge portion proximate to the force indicator; and

means for sensing with the sensing portion of the force indicator a peak force generated by the transit of the relatively mobile central portion.

Claim 46 (original): The device of claim 45 wherein the means for changing the temperature of the actuator includes means for changing a temperature of the means for presenting the thermally responsive snap-action bimetallic actuator to the force indicator.

Claim 47 (original): The device of claim 45 wherein the means for changing the temperature of the actuator includes means for changing the temperature at a controlled rate.

Claim 48 (original): The device of claim 45 wherein the means for changing the temperature of the actuator includes means for increasing the temperature of the actuator above an actuation temperature.

Claim 49 (original): The device of claim 45 wherein the means for presenting the actuator to the force indicator includes means for simulating a portion of a structure intended to support the actuator during operation in a temperature sensing device.

Claim 50 (original): The device of claim 45 wherein the means for changing a temperature of the actuator to transit the mobile portion into a position on the second side of the edge portion proximate to the force indicator includes means for generating a force with the relatively mobile central portion of the actuator.

Claim 51 (original): The method of claim 50 wherein the means for sensing a peak force generated by the transit of the relatively mobile central portion includes means for transmitting the force generated by the actuator to the sensing portion of the force indicator.

Claim 52 (original): A bimetallic actuator testing device for testing a force generated by transit of a thermally responsive bimetallic disc between a first pre-snap state and a second post-snap state, the bimetallic disc being configured having a substantially round edge portion positioned peripherally to a center portion that is mobile relative to the edge portion and extends on a first side of the edge portion when the disc is configured in the first pre-snap state and transits with a snap-action in response to experiencing a predetermined set-point temperature past the edge portion to extend on a second side of the edge portion, the bimetallic actuator testing device comprising:

a support structure having a first annular support surface sized to support an edge portion positioned peripherally to a relatively mobile center portion of a thermally responsive bimetallic disc;

a force indicator having a force sensing surface positioned relative to the first annular support surface to be forcefully engaged by the relatively mobile center portion of the thermally responsive bimetallic disc when the relatively mobile center portion transits with a snap-action in response to experiencing a predetermined set-point temperature from a first side of the edge portion to extend on a second side of the edge portion; and

a thermal stage positioned relative to the support structure to induce the predetermined set-point temperature in the thermally responsive bimetallic disc supported on the first annular support.

Claim 53 (original): The testing device of claim 52 wherein the thermal stage is positioned adjacent and in close proximity to the first annular support surface of the support structure.

Claim 54 (original): The testing device of claim 52 wherein the force indicator is a pressure-sensing transducer of a type that is capable of sensing a peak force applied to the force sensing surface.

Claim 55 (original): The testing device of claim 52, further comprising a drive member positioned intermediately between the first annular support surface of the support structure and the force sensing surface of the force indicator for transmitting a force generated when the relatively mobile center portion of the bimetallic disc transits with a snap-action from the first side of the edge portion to extend on the second side of the edge portion.

Claim 56 (original): The testing device of claim 55 wherein the support structure further comprises a columnar support structure that includes the first annular support surface and further comprises a second annular support surface spaced away from the first annular support surface toward the force sensing surface of the force indicator and sized having an interior dimension larger than the edge portion of the bimetallic disc; and

further comprising a spacer that is structured to engage the second annular support surface and cooperates with the first annular support surface to form an annular groove within which the peripheral edge portion of the bimetallic disc is captured, the spacer including an aperture with which the drive member is slidingly engaged for motion between the first annular support surface of the support structure and the force sensing surface of the force indicator.

Claim 57 (original): The testing device of claim 56 wherein the drive member and the spacer are sized such that a first end portion of the drive member is positioned by the spacer to contact an inner concave surface of the bimetallic disc when the disc is configured in a first pre-snap state and installed into the annular groove, and a second end portion of the drive member is positioned by the spacer to engage the force sensing surface of the force indicator when the disc is configured in a second post-snap state.